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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,725	04/04/2001	Alex Hornig	HORN3003/EM/6664	1747

7590 12/04/2002
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EXAMINER

LE, DANG D

ART UNIT PAPER NUMBER

2834

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,725

Applicant(s)

HORNG ET AL.

Examiner

Dang D Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - Page 4, lines 26 and 27, replace "22" with -- 24 --. Numeral reference "22" is for holding member.
 - Page 5, line 14, replace " 22" with -- 24 --. Appropriate correction is required.

Claim Objections

2. Claims 1 and 13 are objected to because of the following informalities:
 - Claim 1, lines 5, 7 and 9, insert -- metal -- before "axle".
 - Claim 13, lines 21 and 23, insert -- metal -- before "axle". Appropriate correction is required.
3. Applicant is advised that should claim 12 be found allowable, claim 19 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 13 recites the limitation " the inner flange of the holding member " in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 4, 5, 11, 13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsieh (U. S. Pat. No. 6,183,221).

Regarding claim 1, Hsieh shows a combination of a rotor and a supporting structure for the rotor, the combination comprising:

- A metal axle tube (41),
- A holding member (20) securely mounted in the axle tube, the holding member including a hole (for shaft 11) and an inner flange (portion at lead line to 20) formed on an inner periphery defining the hole;
- A supporting member (13) securely mounted in the axle tube and including a supporting portion (hole in the middle of 13);

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- A fixing member (12) securely mounted in the axle tube and including an opening; and
- A rotor having a shaft (11) provided to a center thereof, the shaft including an engaging groove (at lead line to 111), the shaft being extended through the hole of the holding member and the opening of the fixing member (12) with an end face of a distal end of the shaft rotatably resting on the supporting portion of the support member and with the fixing member engaging with the engaging groove of the shaft, whereby the shaft and the inner flange of the holding member have a slight contact therebetween (Figure 2).

Regarding claim 2, it is noted that Hsieh also shows the axle tube including a hole (inner circumferential surface of (41), and wherein the holding member (20), the support member (13), and the fixing member (12) are tightly engaged with an inner periphery defining the hole of the axle tube.

Regarding claim 4, it is noted that Hsieh also shows the holding member being a ring directly mounted to an inner periphery of the axle tube.

Regarding claim 5, it is noted that Hsieh also shows the holding member being a ring, the axle tube including an inner periphery having a stepped portion (412) on which the ring rests.

Regarding claims 11 and 14, it is noted that Hsieh also shows the axle tube including an inner periphery having a stepped portion (412) against which the fixing member (12) abuts.

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Regarding claim 13, the claim is similar to claim 1 except that it recites "a metal axle tube including a ring formed on an inner periphery thereof". It is noted that Hsieh also show the ring (412) formed on an inner periphery thereof. As a result, claim 13 is also rejected.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3, 6-10 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsieh (U. S. Pat. No. 6,183,221) in view of Higuchi et al.

Regarding claim 3, Hsieh shows all of the limitations of the claimed invention with the axle tube including a hole, the holding member and the support member being tightly engaged with an inner periphery defining the hole of the axle tub except for the

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fixing member being sandwiched between the holding member and the support member.

Higuchi et al. show for the fixing member being sandwiched between the holding member and the support member (Figure 3) for the purpose of retaining the fixing member in place.

Since Hsieh and Higuchi et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to sandwich the fixing member between the holding member and the support member as taught by Higuchi et al. for the purpose discussed above.

Regarding claim 6, it is noted that Higuchi et al. also show the axle tube including an inner periphery having a stepped portion (bottom portion) against which the support member abuts (Figure 3).

Regarding claims 7 and 15, it is noted that Higuchi et al. also show the support member including a closed bottom (portion supporting 45) that forms the supporting portion.

Regarding claims 8 and 16, it is noted that Higuchi et al. also show the supporting portion of the support member including a hole, further comprising a cover (45) for covering the hole, the end face of the distal end of the shaft rotatably resting on the cover (Figure 1).

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Regarding claims 9 and 17, it is noted that Higuchi et al. also show the fixing member including an annular wall which abuts against the supporting portion of the support member (Figure 3).

Regarding claims 10 and 18, it is noted that Higuchi et al. also show the axle tube (32) including an inner periphery having a stepped portion against which the fixing member and the supporting member abuts.

12. Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsieh (U. S. Pat. No. 6,183,221) in view of Shiraki et al.

Regarding claims 12 and 19, Hsieh shows all of the limitations of the claimed invention with a base to which the axle tube is securely mounted and the rotor including a permanent magnet except for a balance plate being mounted to the base and made from magnetically conductive material, the permanent magnet and the balance plate attracting each other.

Shiraki et al. show a balance plate (44) being mounted to the base and made from magnetically conductive material, the permanent magnet and the balance plate attracting each other for the purpose of increasing starting torque.

Since Hsieh and Shiraki et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount a balance plate to the base and to make it from

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magnetically conductive material, the permanent magnet and the balance plate attracting each other as taught by Shiraki et al. for the purpose discussed above.

Information on How to Contact USPTO

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
November 28, 2002

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